

ABSTRACT:

TITLE OF THE ABSTRACT:

DIAGNOSTIC ACCURACY OF NON-CONTRAST MAGNETIC RESONANCE ANGIOGRAPHY (NCE-MRA) IN PERIPHERAL ARTERIAL DISEASE AS COMPARED TO CONTRAST ENHANCED MAGNETIC RESONANCE ANGIOGRAPHY (CE-MRA) AND COMPUTED TOMOGRAPHY ANGIOGRAPHY (CTA)

DEPARTMENT: RADIODIAGNOSIS

NAME OF THE CANDIDATE: DR. SOUMYA SUSAN REGI

DEGREE AND SUBJECT: MD-RADIODIAGNOSIS

NAME OF THE GUIDE: DR. APARNA IRODI

OBJECTIVES: (MAX 30 WRDS):

- 1) Compare the diagnostic efficacy of NCE-MRA with CE-MRA and CTA in peripheral arterial disease
- 2) Assess the inter-observer variability
- 3) Compare with other non-invasive imaging modalities in cases of discrepancies.

METHODS: (CLINICAL AND STATISTICAL METHODS- MAX 100 WORDS):

Each of the patients underwent NCE-MRA and CE-MRA / CTA. In all, 170 arterial segments were analysed. Each of the arteries was then evaluated and graded qualitatively and quantitatively, by two radiologists independently. Sensitivity, specificity, positive predictive value and negative value of non-contrast MRA in identifying significant stenosis were estimated. Agreement in estimation of the degree of stenosis and the quality of the images between the NCE-MRA and CE-MRA/CTA were studied.

RESULTS: (MAX 90 WORDS):

- a) Estimation of the degree of stenosis of the arteries in NCE-MRA was similar to CE-MRA / CTA.
- b) Quality of NCE-MRA images was nearly as good as CE-MRA /CTA. The quality was excellent for aorto-iliac segments, good for femoro-popliteal segments and poor in the infra-popliteal segments.
- c) In the aorto-iliac region, the sensitivity was found to be 75 % and the specificity 92.9%, whereas in the femoro-popliteal region, it was 93.3 % and 97.8% respectively. Sensitivity and specificity were found to be poor in the infra-popliteal arteries.
- d) Inter-observer agreement was found to be excellent.